

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) Process for the preparation of a thermoplastic (TPV) comprising a mixture of a polyolefin and a vulcanized rubber, in which the vulcanization of the rubber is performed at elevated temperature under the influence of a peroxide, wherein the peroxide is an organic peroxide having at least one terminal carbon-carbon double bond in the molecule.

2. (original) Process according to claim 1, wherein the peroxide is an allyl functional peroxide.

3. (currently amended) Process according to ~~anyone of claims 1-2~~ claim 1, wherein the peroxide has a relative solubility δ_r of at least 1, wherein δ_r is the ratio between the solubility-parameter of the peroxide (δ_{per}) and the solubility-parameter of the polyolefin (δ_{po}) both determined at 453 K.

4. (original) Process according to claim 3, wherein δ_r has a value of at least 1.2.

5. (currently amended) Process according to ~~anyone of claims 3-4~~ claim 3, wherein the δ_{per} is at least equal to the solubility-parameter of the rubber (δ_{rub}).

6. (currently amended) Process according to ~~anyone of claims 1-5~~ claim 1, wherein the TPV is prepared via dynamic vulcanization.

7. (currently amended) Process according to ~~anyone of claims 1-6~~ claim 1, wherein the polyolefin is selected from the group comprising polyethylene and polypropylene.

8. (currently amended) Process according to ~~anyone of claims 1-7~~ claim 1, wherein the rubber is selected from the group comprising EA(D)M, (hydrogenated), styrenic block copolymers, and (H)NBR rubber.

9. (currently amended) Process according to ~~anyone of claims 1-8~~ claim 1, wherein the peroxide has at least two carbon-carbon double bonds in the molecule.

10. (currently amended) Process according to ~~anyone of claims 1-9~~ claim 1, wherein the peroxide has a triazine nucleus in its molecule.

11. (currently amended) Process according to ~~anyone of claims 1-10~~ claim 1, wherein the TPV is prepared by dynamically vulcanizing a mixture of polypropylene, EPM or EPDM, and a peroxide having a triazine nucleus in its molecule.

12. (currently amended) Process according to ~~anyone of claims 1-11~~ claim 1, wherein the crosslink density of the rubber in the TPV, determined as a gel content in boiling xylene is at least 90%.

13. (original) Process according to claim 12, wherein the crosslink density is at least 95 %.

14. (currently amended) Process according to ~~anyone of claims 1-13~~ claim 1, wherein the amount of peroxide is from 0.5 to 5.0 parts by weight per hundred parts by weight of rubber.

15. (currently amended) Thermoplastic vulcanizate (TPV), obtainable by a process according to ~~anyone of claims 1-14~~ claim 1.

16. (currently amended) Article, comprising a TPV of claim 15, ~~or a TPV prepared according to a process of anyone of claims 1-14.~~